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**Summary:** Covanta believes that to have the RPS meet the goals of the Green Communities Act, a separate Class II sub-tier for WTE should be created that creates a sufficiently valuable and stable revenue stream for this clean, renewable, base load technology sufficient to maintain operations as well as the Commonwealth's recycling program objectives.

### **Statement of Principles**

- Covanta believes that to have the Renewable Portfolio Standard (RPS) meet the goals of the Green Communities Act (GCA), a separate tier for Waste-to-Energy (WTE) should be created with a percentage, a floor price and an Alternative Compliance Payment (ACP) that creates sufficient value and price stability for this clean, renewable, base load technology sufficient to maintain operations as well as the Commonwealth's recycling program objectives.
- We believe that any out-of-state generator should meet all the standards that an in-state generator must meet.
- In order to balance the proper incentives for generator behavior with the need to minimize ratepayer impact, we believe that the percentage of the WTE sub-tier should be set above the average in-state WTE net electric sales over the past few years.
- We believe that if an out-of-state generator is qualified to sell into the MA Class II WTE sub-tier, then the RPS percentage for WTE tier should adjust upward to account for the new generation in order to maintain price stability.
- We believe that all energy that is derived from waste should be treated the same and required to contribute to meeting the recycling goals of the Commonwealth.

### **Introduction**

Covanta owns and/or operates 35 waste-to-energy facilities in the United States, including four in the Commonwealth of Massachusetts. Three of our

facilities in Massachusetts provide 130 MW of clean, renewable energy from locally-generated municipal solid waste (MSW) while our Pittsfield facility produces and sells steam. Our facility in Haverhill also hosts a new landfill gas-to-energy project that went online earlier this year. In this proceeding, Covanta wishes to see a balance between meeting the policy goals of the GCA with respect to waste-to-energy and minimizing ratepayer impacts.

WTE is a renewable energy source and is recognized as renewable not only by Massachusetts but by 23 other states, the District of Columbia, the Federal government and the European Union. The U.S. EPA states that WTE facilities produce electricity with less environmental impact than almost any other source of electricity. Every ton of trash processed at a WTE facility prevents the equivalent of one ton of carbon dioxide emissions. WTE facilities produce the most energy from waste and get between 520 kilowatt hours and 700 kilowatt hours of electricity from every ton of trash – national landfill gas to energy average is 20 kilowatt hours. The European Union is strongly discouraging landfill use with increase taxes. The EU is increasing WTE use in order to meet Kyoto greenhouse gas reduction requirements and increase renewable energy generation.

In Massachusetts, WTE is a generator of Class II RPS renewable energy, but as recognized by the GCA it is also much more. In Massachusetts, it is a vital component of the State's solid waste infrastructure. About 34% of the State's waste is converted into clean renewable energy at these facilities; about 37% is recycled and the rest is landfilled at in-state or out-of-state landfills. Our facilities reduce the volume of MSW by 90%, reducing the need to use valuable land for waste disposal. They are also responsible for reducing emissions of greenhouse gases, primarily by eliminating the generation of methane from waste dumped in landfills. Emissions of greenhouse gases are reduced by about one ton of CO<sub>2</sub>-equivalent per ton of MSW processed at a WTE facility, even when factoring in landfill gas-to-energy at landfills. To date, Covanta has reduced greenhouse gas emissions by 250 million tons – that is the equivalent of taking 41 million cars off the road. Our WTE facilities also recover metals from the waste for subsequent recycling; metals that were missed by recycling programs and would otherwise have been dumped in a landfill. Nationally, Covanta recovers enough metals to make 275,000 cars annually. During 2007, our Massachusetts facilities recovered almost 69,000 tons of ferrous. Even given these facts, there is much room for improvement in expanding recycling and waste-to-energy as means to reduce landfilling and exportation of garbage to other states.

Through implementation of the Green Communities Act and the Class II RPS provisions, WTE facilities and the communities they serve will be able to enhance their recycling programs, helping to strengthen the solid waste management system. The CGA mandates that fifty percent of revenues from Class II renewable energy credit (REC) sales revenues be allocated to recycling

programs approved by the MADEP. This will help reduce the amount of MSW sent to landfills both in and out of state. The specific nature of the programs will be worked out with MADEP but could include such things as regional electronic waste management, commercial organics conversion, or infrastructure for single-stream recycling programs. Covanta would like to see some flexibility to make sure that the most useful, efficient and cost-effective recycling program is implemented, including the option to meet the financial obligation through recycling programs we run.

### **How should the Annual Class II RPS Percentage rate be determined, and what should that rate be?**

One goal of the Class II RPS is to provide meaningful funding for recycling programs in Massachusetts. An equally important goal is to create a funding stream that is stable to maintain operations, and it would do the state little good to build recycling programs to then have to shut down because their funding sources dry up. In order for that to occur, Class II renewable energy credits (RECs) from Waste-to-Energy facilities need to have value.

The potential for the Class II market to flood, with supply substantially exceeding demand, would assure that prices are near zero, as in the Connecticut and Maine Class II markets. Such minimal revenues will not support the establishment and maintenance of new recycling programs. Covanta therefore supports the concept of a separate Class II tier for WTE because it reduces the risk of oversupply that could be provided by other, non-WTE, Class II sources that are not required by the GCA to contribute to the state-approved recycling program.

As a starting point, the WTE RPS percentage should be designed with reference to the actual (recent historical) output of the six WTE plants operating in the state. Initially, the percentage should be based on the net energy sales during the past few years – the potentially-eligible supply. The total for the six WTE facilities (based on three year average of 2005, 2006, 2007) is 1,737GWh<sup>1</sup>, which represents 3.4% of average MA retail sales during the same period. Therefore the WTE tier should be set above this level around 4% to create some slight supply demand tension and have a strong market place.

As long as it is relatively difficult for out-of-state WTE to qualify, these values can stand. However, the percentage must have the ability to adjust upward if out-of-state WTE facilities are approved to sell WTE RECs in Massachusetts.

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<sup>1</sup> If DOER is interested, we are happy to provide detailed backup in support of these figures.

**What criteria should be required for any of the specified eligible technologies or fuels?**

The goal for qualification of WTE facilities is to ensure that any facility that qualifies as a Class II source under the GCA also provides Massachusetts with the benefits intended by the GCA. First and foremost, any facility, either within Massachusetts or in another state, will have to operate, contract with, or make payments to MADEP to fund one or more recycling programs approved by the MADEP and provide 50% of any REC revenue to those programs as required by Section 11F(d) of the GCA. The standards for MADEP approval of such programs are not specifically defined by the Act. However, the fundamental basis of these standards should be the goals of the GCA, i.e., providing a measurable benefit to Massachusetts communities and enhancement of the Commonwealth's solid waste management infrastructure.

Covanta believes the recycling requirements should be flexible enough for the MADEP to establish standards and approve programs. We believe that 50% of the REC revenue should go to the best program, whether that means simply writing a check or developing our own MADEP-approved program. Regardless of the operational involvement of the WTE company, the recycling program must manage Massachusetts-generated materials and be consistent with the goals of the State Solid Waste Management Plan.

In addition to the recycling requirement of the GCA, qualifying WTE in Massachusetts is now required by statute to meet all environmental standards applicable to similar facilities in the State. In-State facilities obviously qualify automatically. Out-of-state facilities should not require permits issued by the MADEP, but they should be required to demonstrate consistency with the Commonwealth's stringent quantitative and operational environmental standards for WTE facilities. At a minimum, this should include compliance with the technical standards included in 310 CMR 7.08 and 310 CMR 19.000. The requirements of 310 CMR 7.08(2)(f) provide emission standards that are typical for the industry in the northeastern U.S. It also includes a Massachusetts-specific requirement for development and implementation of a MADEP-approved Material Separation Plan for removal of mercury-containing products, and emissions testing every nine months instead of once per year. MADEP should sign off on out-of-state WTE plant compliance with these standards before DOER would issue a Statement of Qualification to an out-of-state WTE plant.

**What should the ACP amount be for Class II, and how should it be calculated?**

The purpose of an ACP for WTE Class II RECs is to ensure adequate REC revenue for these unique facilities which function primarily as municipal solid waste infrastructure but which also function as base-load, greenhouse gas

reducing renewable energy generators. Given that 50% of any REC revenue will be used for recycling programs and unavailable for re-injection into the project in some fashion, it is vital that the RECs have enough value to meet both objectives. Unless REC prices have real value and can support the cost of participating in the REC market even when half of that revenue is diverted to programs outside the company, adequate funding for creating recycling programs will not be available. This revenue must also be sustained at a reasonably stable level so that recycling programs remain financially stable and do not fail as a result of falling REC prices over the years, and so that these facilities don't fail as municipal solid waste infrastructure and force local governments into landfilling increasing amounts of their waste. An initial ACP could be established that would provide an incentive for load-serving entities to purchase WTE RECs for compliance, provide room for adequate revenues for maintaining recycling programs, while limiting ratepayer cost exposure. We recommend that the ACP for Class I is higher than necessary for these purposes. In the interest of regional consistency, the next best alternative available would be to use the current New Hampshire Class III ACP of \$28/MW-hr (adjusted for inflation) as a benchmark. This consideration would provide regional consistency with existing renewable energy ACPs, even though the New Hampshire Class III REC revenues are not divided between the generator and communities. Covanta also believes that if an ACP is paid that half of that ACP should also go toward the recycling program along with 50% of the REC revenue.

Along with an adequate ACP, we believe that providing funding stability for recycling programs requires that DOER establish some form of price floor for WTE RECs.

### **Landfill Gas**

Covanta owns landfill gas-to-energy projects and we believe that the same recycling criteria and revenue-sharing provisions should also apply to Class 1 landfill gas-to-energy projects. Waste-to-Energy is Waste-to-Energy, whether it is extracted directly from waste in a conventional WTE facility or whether it is withdrawn slowly over decades from a landfill. As a minimum, the connection and linkage should be understood and acknowledged.

The RPS as currently structured has a strange, apparently unintended consequence of inhibiting recycling by its treatment of LFG-to-energy while requiring it from WTE. Existing WTE facilities will be required to establish additional recycling programs in order to be eligible as Class II renewable energy sources. While not specified at this point, at least some of these programs are likely to involve organic, biogenic, compostable material. One of the MADEP's goals is to advance the diversion of organic waste, and WTE can be a part of that solution. Ironically, however, LFG-to-energy is classified as a Class I renewable

(or Class II if pre-1997), even though the gas is generated almost entirely by the decomposition of landfilled organic material.

An RPS that provides such different Class I and Class II eligibility criteria to landfills compared to conventional WTE encourages landfilling over recycling and also results in increased greenhouse gas emissions from waste management. This policy also fails to recognize the significant renewable contribution WTE makes versus landfills. A WTE facility generates about 550 KWhr of electricity from a ton of garbage, while an efficient landfill gas-to-energy facility generates only about 100 KWhr from the same ton. Nationally, landfills generate only about 20 KWhr of electricity from a ton. Covanta believes that this preferential treatment of landfills as a renewable energy technology is inconsistent with every applicable environmental goal set by the Commonwealth. Therefore, we suggest that the same recycling requirement set for WTE should also apply to new and existing landfills including our own.